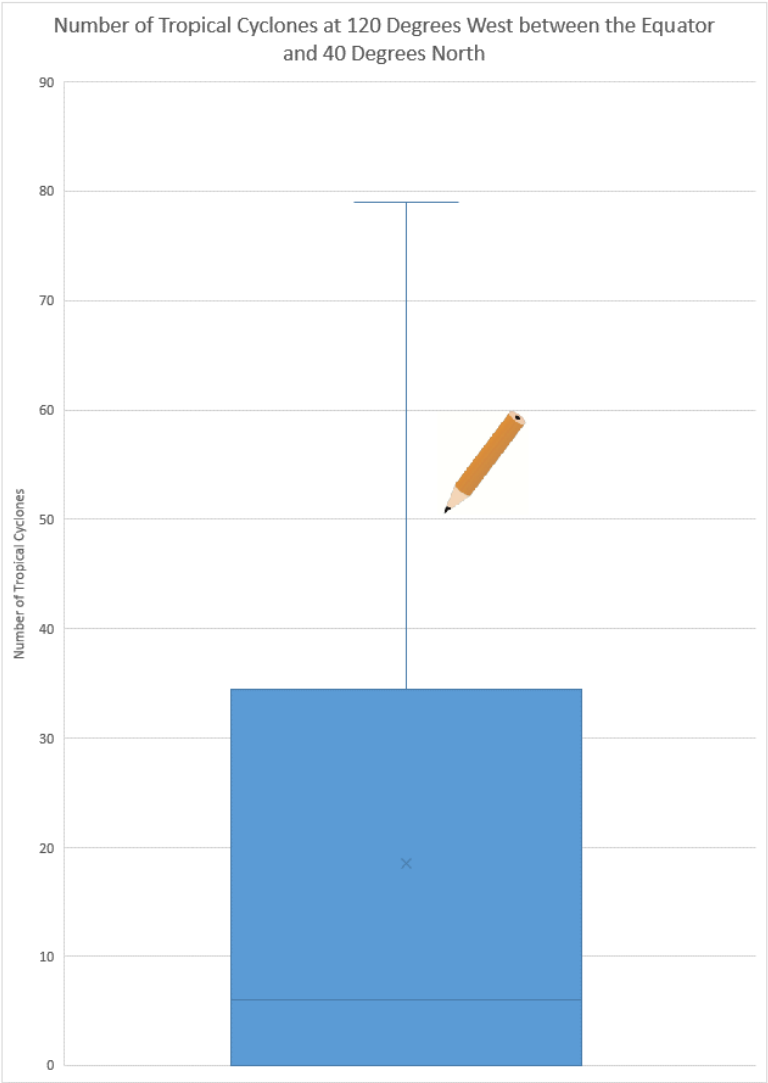
My NASA Data - Mini Lesson

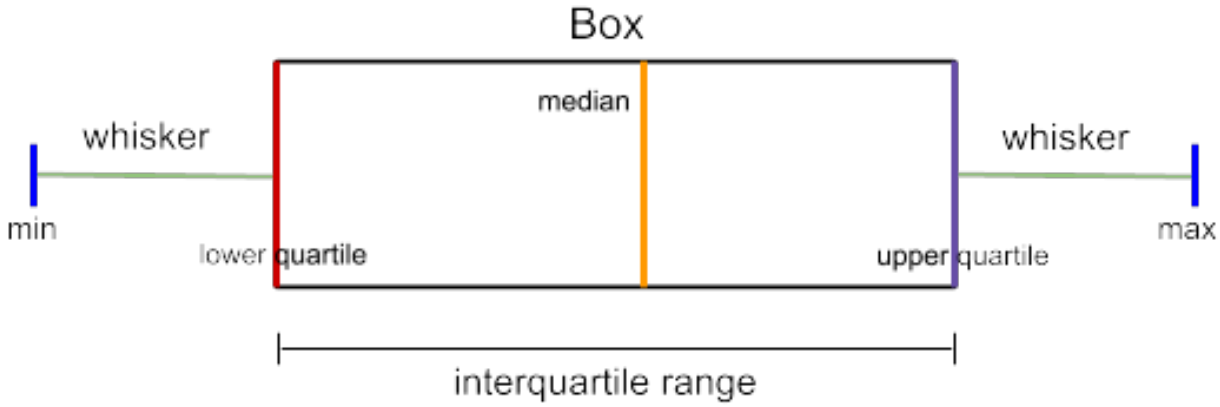
Tropical Cyclone Counts Create Box Plot



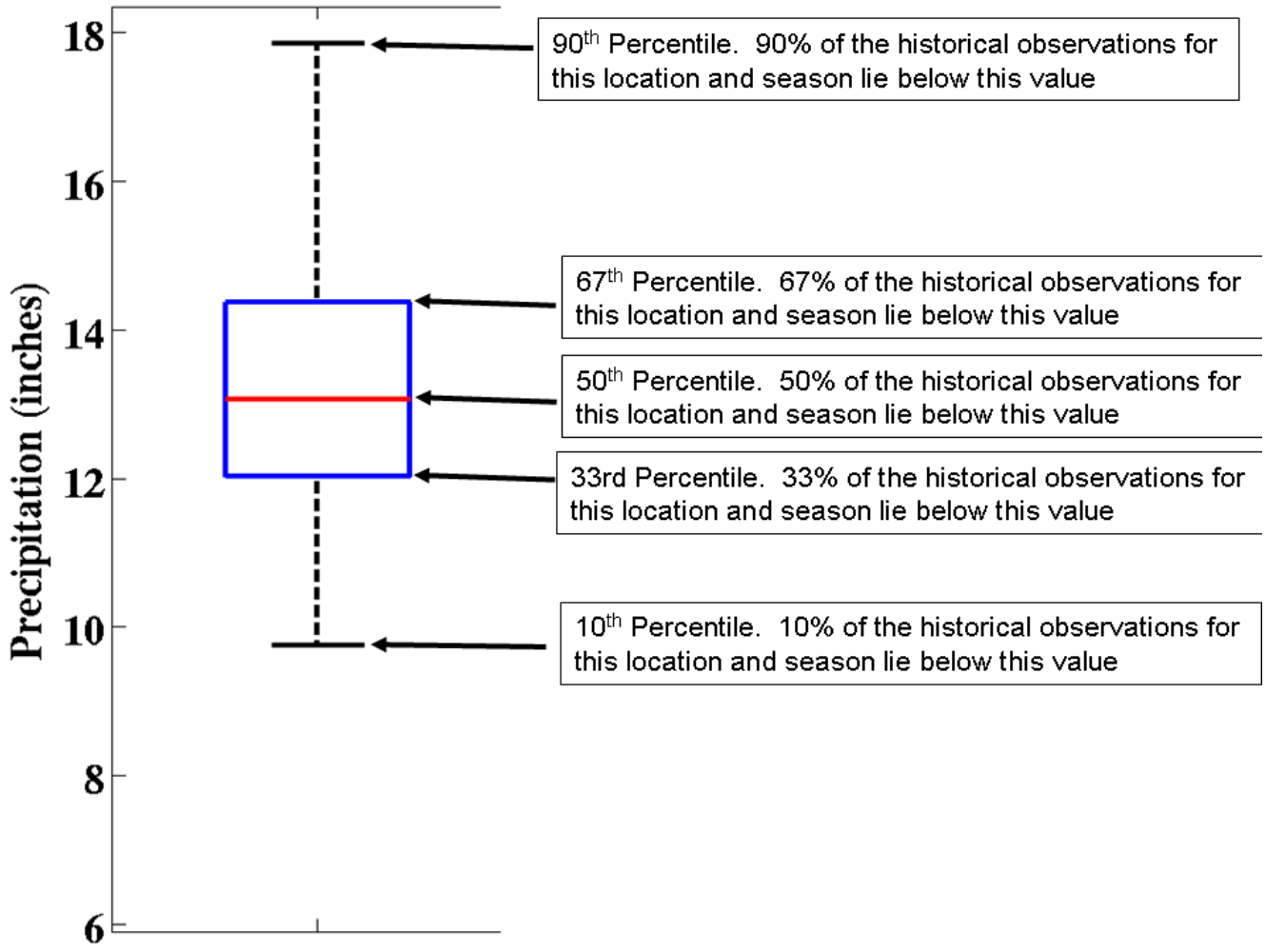
Pencil image credit: https://cliparts.zone/clipart/30469

Mini Lesson

A **box plot** is a type of graph which shows variability within a group. It shows the minimum, maximum, median, range, upper and lower quartile of the data.



- *Within any box plot, you may find the...*
  - *minimum (lowest value in dataset);*
  - *maximum (highest value in dataset);*
  - *median (middle number in a set of numbers ordered from least to greatest);*
  - *range (the difference between the highs and lowest values in the dataset);*
  - *upper quartile (median of the upper half of the data when ordered from least to greatest);*
  - *and lower quartile (median of the lower half of the data when ordered from least to greatest).*



ENSO Precipitation & Temperature Data. (Image Credit: NOAA, 2005)

Section A: Plan your Box Plot

1a. Use the data table provided below to calculate the following. Remember to order the data from least to greatest before doing the calculations.

- Median
- Minimum
- Maximum
- First Quartile
- Third Quartile
- Interquartile Range

2a. What label will you use for the scale?

3a. How many squares of the graph paper will you use for each unit?

4a. How many squares will you need for the scale?

5a. What title will you use?

6a. Will draw it vertically or horizontally?

Section B: Create the Box Plot Using the Answers to the Planning Questions

1b. Draw the scale using the graph paper provided.

2b. Label the scale.

3b. Add the title.

4b. Using the minimum, maximum, median, lower and upper quartiles, draw the box plot.

Data Table- Tropical Cyclones at 120° West from the Equator to 40° North

Latitude Degrees North	Number of Tropical Cyclones
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	1
9	7
10	5
11	9
12	22
13	43

14	42
15	61
16	72
17	68
18	79
19	66
20	65
21	56
22	42
23	27
24	20
25	22
26	14
27	10
28	13
29	6
30	6
31	4
32	1
33	0
34	0
35	0
36	0
37	0
38	0
39	0
40	0

This is part of the Tropical Cyclone Counts Graphing Bundle and can be completed independently or with the other activities in the bundle.

Earth System Data Explorer

- Number of Tropical Cyclones (1842-2017)